

IN THE CLAIMS

Claim 1-15 (cancelled)

Claim 16 (new): A process comprising:

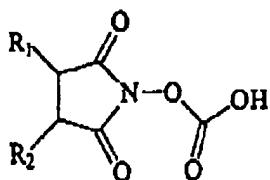
(i) reacting a polymer with an activating reagent or a derivative of the activating reagent in homogeneous phase, the polymer having a functional group that is an OH group, an NHR group, an SH group, an OSO₃H group, an SO₃H group, an OPO₃H₂ group, an OPO₃HR group, a PO₃H₂ group, a PO₃HR group, or a COOH group, where R can be any group, including H.

Claim 17 (new): The process of claim 16 further comprising:

(ii) reacting the reaction product of step (i) with a derivatizing reagent.

Claim 18 (new): The process of claim 16 wherein the derivative of the activating reagent is obtained by prior reaction of the activating reagent with a derivatizing reagent.

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Claim 19 (new): The process according to claim 16, wherein the activating reagent has the structure



where R₁ and R₂ are straight-chain, branched-chain, or bridged to give a carbocycle or a heterocycle.

Claim 20 (new): A polymer derivative prepared by the process of claim 16.

Claim 21 (new): The process of claim 16 further comprising:

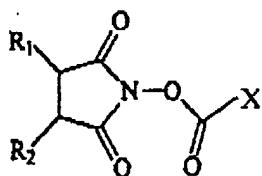
(ii) bonding a substrate to a receptor group of a reaction product of step (i) via non-covalent receptor-substrate interaction.

Claim 22 (new): The process of claim 21 wherein the reaction product of step (i) has two such functional groups that are derivatized in a way that they interact with the substrate as receptor groups, the functional groups being separated by a another functional group having non-substrate-specific action and/or by a monomer unit without a functional group.

Claim 23 (new): The process of claim 21 wherein the bonding of the substrate can take place via at least two different types of interactions due to the chemical constitution of the receptor groups.

Claim 24 (new): A process comprising:

reacting a polymer in homogeneous phase with an activating reagent having the structure



where R1 and R2 are straight-chain, branched-chain, or bridged to give a carbocycle or a heterocycle, and X is any group, to obtain a reaction product.

Claim 25 (new): The process of claim 24 wherein X is Cl, OH, OR, SR or NRH.

Claim 26 (new): The process of claim 24 further comprising reacting the reaction product with a derivatizing reagent.